

REMARKS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 15-25 are currently pending. Claims 15-21 and 23-25 have been amended by the present amendment. The changes to the claims are supported by the originally filed specification and do not add new matter.

In the outstanding Office Action, Claim 25 was rejected under 35 U.S.C. § 112, second paragraph, regarding the limitation “the getter film”; Claims 15-17, 19-23 and 25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,876,260 to Pepi et al. (hereinafter “the ‘260 patent”) in view of U.S. Patent No. 5,614,785 to Wallace et al. (hereinafter “the ‘785 patent”); Claim 18 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the ‘260 and ‘785 patents, further in view of U.S. Patent No. 3,732,359 to Chen (hereinafter “the ‘359 patent”); and Claims 16 and 24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the ‘260 and ‘785 patents, further in view of U.S. Patent No. 6,409,564 to Browning et al. (hereinafter “the ‘564 patent”).¹

In response to the rejection of Claim 25 under 35 U.S.C. § 112, Claim 25 has been amended to address the antecedent basis question noted in the Office Action. Accordingly, Applicants respectfully submit that the rejection of Claim 25 under 35 U.S.C. § 112 is rendered moot by the present amendment to that claim.

Amended Claim 15 is directed to a method of manufacturing a flat panel display, including joining a substrate having an electron emitting element and a faceplate having a phosphorous screen, so that the electron emitting element and the phosphorous screen face each other over a gap, comprising: (1) treating the faceplate, comprising irradiating an

¹ Applicants note that Claim 16 was rejected under 35 U.S.C. § 103 over the ‘260 and ‘785 patents, but also separately over the ‘260, ‘785, and ‘564 patents. Further, Applicants note that Claim 16 does not recite the supporting frame mentioned in the second rejection of Claim 16 on page 7 of the outstanding Office Action.

electron beam onto the faceplate accommodated in a treatment vessel, while heating the faceplate in a vacuum atmosphere, and forming a getter film on the faceplate, onto which the electron beam is irradiated by means of vacuum deposition; (2) treating the substrate, comprising irradiating the electron beam onto the substrate accommodated in a treatment vessel, while heating the substrate in a vacuum atmosphere; (3) assembling the substrate and the faceplate, which have been irradiated with the electron beam; and (4) heating and joining the assembled substrate and faceplate in a vacuum atmosphere. The changes to Claim 1 are supported by the originally filed specification and do not add new matter.

Regarding the rejection of Claim 15 under 35 U.S.C. § 103, the Office Action asserts that the '260 patent discloses everything in Claim 15 with exception of "forming a getter film on the faceplate by means of vapor deposition,"² and relies on the '785 to remedy that deficiency. However, Applicants note that Claim 15 recites "vacuum deposition" not "vapor deposition," as asserted in the Office Action.

The '260 patent is directed to a method of assembling a flat-panel display screen and includes a degassing-of-the-plate step and a vacuum-burning step. However, as admitted in the Office Action, the '260 patent fails to disclose a step of forming a getter film on the faceplate by means of vacuum deposition, as recited in amended Claim 15.

The '785 patent is directed to an anode plate for a flat-panel display having a silicon getter. In particular, the '785 patent discloses that a getter material 29 of porous silicon is deposited on the substrate 26 between the conductor region 28 of the anode plate.³ However, Applicants respectfully submit that the '785 patent fails to disclose forming a getter film on the faceplate by means of vacuum deposition, as recited in Claim 15. Rather, the '785 patent discloses that a getter film is deposited on the substrate by means of chemical vapor

² Page 3 of the Office Action dated December 9, 2003.

³ See '785 patent, Abstract.

deposition, but that alternatively, a sputtered silicon layer may be deposited at or near room temperature.⁴

Thus, no matter how the teachings of this '260 and '785 patents are combined, the combination does not teach or suggest forming a getter film on the faceplate by means of vacuum deposition, as recited in amendment Claim 15. Accordingly, Applicants respectfully submit that the rejection of Claim 15 (and dependent Claims 17 and 19-23) is rendered by the present amendment to Claim 15.

Amended Claim 25 recites limitations analogous to the limitations recited in Claim 15. In addition, Claim 25 has been amended to recite a first baking and cleaning chamber and a second baking and cleaning chamber, wherein the second baking and clean chamber comprises a treatment vessel, exhausting means for evacuating an inside of the treatment vessel to a vacuum atmosphere, irradiating means for irradiating an electron beam onto the faceplate, and means for heating the faceplate. Further, Claim 25 recites means for forming a getter film on the faceplate by means of vacuum deposition. Accordingly, for the reasons stated above for the patentability of Claim 15, Applicants respectfully submit that the rejection of Claim 25 is rendered moot by the present amendment to that claim.

Regarding the rejections of dependent Claims 16, 18, and 24 under 35 U.S.C. § 103, Applicants respectfully submit that the '564 and '359 patents fail to remedy the deficiencies of the '260 and '785 patents, as discussed above. Accordingly, for the reasons stated above for the patentability of Claim 15, Applicants respectfully submit that the rejections of dependent Claims 16, 18, and 24 are rendered moot by the present amendment to Claim 15.

Thus, it is respectfully submitted that independent Claims 15 and 25 (and all associated dependent claims) patentably define over any proper combination of the '260, '785, '564, and '359 patents.

⁴ '785 patent, column 6, lines 34-43.

Consequently, in view of the present amendment and in light of the above discussion, the outstanding grounds for rejection are believed to have been overcome. The application as amended herewith is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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A handwritten signature in cursive script that reads "Kurt m. Berger". The signature is written in dark ink and is positioned above a horizontal line.

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